

Re: Isn't Water Like Zero Gravity?

Source: <http://sci.tech--archive.net/Archive/sci.anthropology.paleo/2005-06/msg00486.html>

- *From:* "firstjois" <firstjoisyike@xxxxxxxxxxxxx>
 - *Date:* Wed, 15 Jun 2005 15:14:29 -0400
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Philip Deitiker wrote:

[snip]

>> Now go into outer space and blow the hatch open on your
>> spaceship. That is the effect of no gravity on the water
>> inside your body. The human body exists at 98.6 degrees which
>> is well below the boiling point of water at standard pressure.
>> (22.4 moles per liter of gas, about 14 lbs per square inch).
>> If that pressure is removed as a result of negation of ambient
>> gravitational force, the atmosphere is released from
>> gravimetric objects and the pressure drops. The vapor pressure
>> of water at 98.6' is in excess of the vacuum of space, and the
>> water at the surface of the skin hottest places begins to
>> boil, within about 30 seconds the body skin no longer suffices
>> to retain the desire of bodily fluids to randomize their
>> positions in space, the Aveoli in the lungs explode and begin
>> to freeze, the individual dies.
>> The environment of a space craft is to artificially maintain
>> pressure in the absense of a gravitating force, such as the
>> earths mass. Even the earths mass only suffices to hold
>> livable air to about 18000 feet, beyond which most mammals
>> cannot survive on an extended basis. For this reason
>> spacecrafte can achieve a dynamic equilibrium between gravity
>> and inertia (centrifugal forces) to create an orbit at very
>> high velocities. The ability to generate such orbits obviates
>> the presences of atmosphere, and the gravitational attraction
>> of the spacecraft is negligable in attracting its own gravity.
>> The result is that any atmosphere is a potentially explosive
>> force, including the dissolved gases that exist in ones body.
>>

With help like this from you George Lucus could probably be having a happy holiday in Croatia right now. Geesh!

>> The commonality between water and weightlessness in orbit is
>> this. In a gravimetrically competitive situation all objects
>> seek to orient themselves from most dense to less dense. In

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>> air humans are much more dense in air, and therefore we fall
>> through the air column until we hit something more dense, like
>> the ground or water. In water humans are heavier or lighter
>> depending on bone density and lung filling. With lungs filled
>> we can float. If you exhale an exact amount of air your body
>> is equal and density to water. The force exerted down by
>> gravity is equal to the some of all vector forces pushing you
>> up (or displacing you up) in the water column. IOW the force
>> of 'bouyancy' has equity with the force of falling.

>>

>> In orbit the situation is simulated because the centrifugal
>> force (inertia, omega squared radius) is countered by
>> gravitational force. The result is a cancelling of forces.
>> However in space if I were to place a person in a swimming
>> pool the water would blast into space, leaving the individual
>> to subsequently explode, or if I were to place the water in a
>> swimming pool of artificially inducing hyponormal 'gravity' (a
>> pin wheel station) the individual would be able to breath
>> easier underwater, would feel very little force of water and
>> would have a much easier time floating and maintaining
>> bouyancy. The pressure of the water on lungs and limbs would
>> disappear.

>>

>>

>> --

>> Philip

And so would the atmosphere.

Are you saying they would be able to breathe air from water? Or just floating there the could breathe air from the space ship more easily?

Jois

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• *References:*

◆ *Isn't Water Like Zero Gravity?*

◇ *From:* firstjois

◆ *Re: Isn't Water Like Zero Gravity?*

◇ *From:* John Roth

◆ *Re: Isn't Water Like Zero Gravity?*

◇ *From:* Philip Deitiker

- Prev by Date: *Re: A critique of the BBC aquatic ape programme and the transcript.*
- Next by Date: *Re: Magyar AAT*
- Previous by thread: *Re: Isn't Water Like Zero Gravity?*
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